

Letter from Alexander Graham Bell to Mabel Hubbard Bell, June 10, 1880, with transcript

Alexander Graham Bell to Mabel (Hubbard) Bell. L 904 — 14th St., Washington, June 10th, 1880. My sweet little wife:

Your note without a beginning or end or date or address received this morning. I am as crazy as you are over the idea of a summer yacht — but I cannot say that I see my way to it just now.

Even if we could hire the sort of yacht we want — I could not feel comfortable in leaving you on board and should tremble at every breath of wind. Elsie too would be cribbed cabined and confined. I think we must postpone the fulfillment of the idea until we can be all together. However I will see if there are any suitable yachts here and let you know.

It would be splendid to make such a trip as you suppose. How would you like to do it after the meeting of the American Association in August. I have no doubt we could hire a suitable vessel and a competent crew (only think!?) in Boston or New York — and speed away up the St. Lawrence or anywhere else we like. Wouldn't it be splendid?

Please don't go on horseback till I come. How did Elsie enjoy her ride? Has Lina been out bathing again? Has Dr. Daruch or Canoch made his appearance yet. I doubt very much whether I can be in Philadelphia on Saturday morning in time to meet Lina. Better telegraph Charlie to escort Lina to Germantown. The final fees on Charlie's Patents have been paid and they will probably come out in about three weeks.

My Patent for the Bell Telephone has just been issued — came out on Tuesday, June 8th.

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Mr. Tainter and I are hard at work trying to ascertain definitely whether the passage of a battery current through selenium while annealing — permanently reduces the resistance of the selenium. Many of our former experiments seem to indicate that it reduces the resistance enormously — but the experiments made yesterday and the day before have yielded negative results. We heated two selenium cells together passing a current of 58 cells of gravity battery through one of them to see whether there would be any material difference between the resistance of the cells. The experiment was repeated with two other sets of two selenium cells. The mean results obtained seemed to indicate that no material permanent change was produced by the battery current. On comparing the results with the results of former experiments a great discrepancy appears. We are inclined to think that the difference can be explained by supposing that the effect of permanent reduction of resistance is only produced when the selenium is heated up to some particular temperature. The exact point is unknown but we think it is the melting point of crystalline selenium. In this case the negative results obtained yesterday and the day before were due to not having the selenium hot enough.

We have prepared six selenium cells to-day — and I am anxious to go over to the laboratory to repeat the experiments of yesterday with these new cells. We are to heat the cells in couples — (a battery-current being passed through one but not the other) — They are to contain crystalline selenium to commence with and will heat them until the crystalline selenium shows signs of melting when the gas will be put out and the whole allowed to cool. I think we will be able to demonstrate satisfactorily tonight the action or non-action of the battery-current in reducing the resistance. This point is an important one to settle as we cannot apply for patents until we are quite sure of our methods of preparing the selenium.

So I must say good night my darling little wife.

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I miss you very much and wish you could be nearer. That heat-eruption has extended over a good portion of my unfortunate body but I think the sea-water bath I took last night has checked it.

I shall consult Dr. Johnson about the localities near Washington.

Nancy Johnson has received the title deeds to her house — or an agreement to the same effect. Mr. Tainter's Cambridge friend (Mr. Read) arrived yesterday and is now at work upon a new cylindrical Selenium Cell substantially like Mr. Tainter's "baby."

Good night my darling. Love to Lina and kisses for my sweet babies.

Your loving husband, Alec. Mrs. Alexander Graham Bell, The Brighton, Atlantic City, N. J.
P. S. Richard has forwarded the clothes to you. I shall try to leave here tomorrow night but all depends upon the success of the experiments we are trying. At all events I shall spend Sunday with you.